

c UL us
E494324

APPLICATIONS

Street and Roadway Lighting
Photo controls
Parking Lot Lighting

ANSI C136.10-2010
ANSI C136.41-2013
Dimming Receptacles

A41-3/5/7

1. INTRODUCTION

This specification covers the requirements for application of ANSI C136.41-2013(ANSI C136.10-2010) Dimming Receptacles typically used for roadway and area lighting. Al contactsare pre-installed into the receptacle housing and pre-crimped with 305 mm(12.0 in.)lead-wire, with 14 AWG stranded wire used onthe three line voltage AC circuits and 18 AWG wire used on the foursignal dimming control voltage DC circuits. Receptacle assembies are available with -40-70° C.Receptacle assemblies are also available with either 2 or 4 dimming control pad-style contacts

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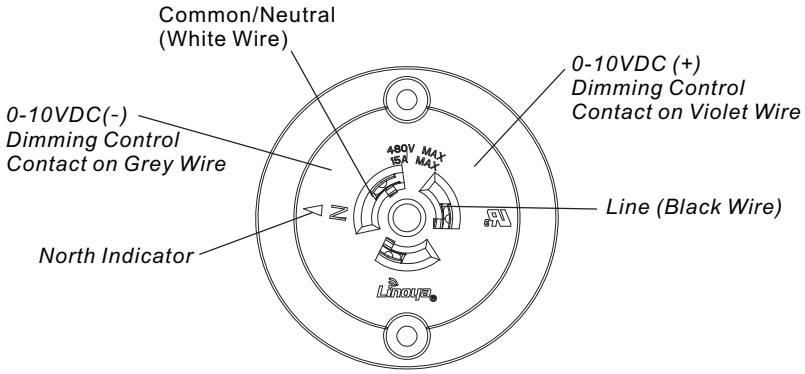
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ANSI C136.41-2013/ANSI C136.10-2010 Dimming Receptacles

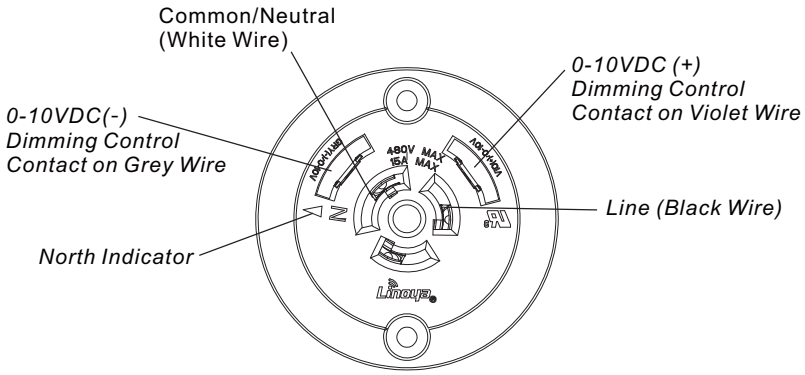
NOTE

All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters. Unless otherwise specified, dimensions have a tolerance of ±0.13 mm and angles have a tolerance of ±2°. Figures and illustrations are for identification only and are not drawn to scale.

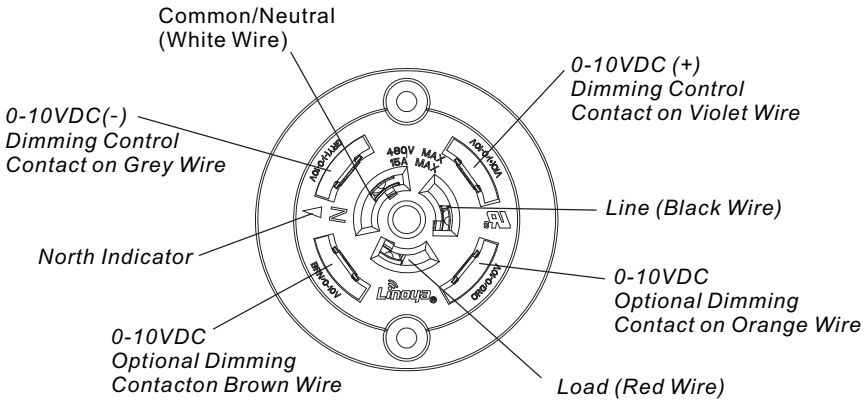
Please use the terminology provided in this specification to facilitate inquiries for information.
Basic terms and features of this product are provided in Figure 1.



A41-3



A41-5



A41-7

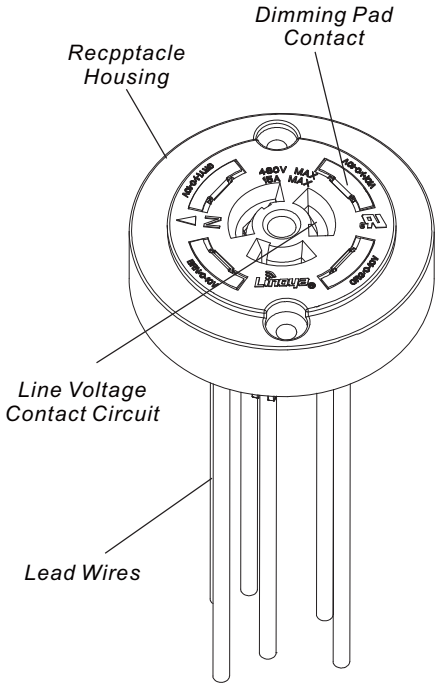


Figure 1

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2. REFERENCE MATERIAL

2.1. Revision Summary
Initial release of application specification

2.2. Customer Assistance
Reference Product Base Part NumberA41-3/5/7are representative of the ANSI C136.41-200X Dimming Receptacles. Use of these numbers will identify the product line and help you to obtain product and tooling information. Such information can be obtained through a local linoya Representative, by visiting our website at www.linoya.com, or by calling PRODUCT INFORMATION or the TOOLING ASSISTANCE CENTER at the numbers at the bottom of page.

2.3. Drawings
Customer Drawings for product part numbers are available from the service network. If there is a conflict between the information contained in the Customer Drawings and this specification or with any other technical documentation supplied, the information contained in the Customer Drawings takes priority.

2.4. Specifications
Product Specification A41-3/5/7 provides product performance and test information for the ANSI C136.41-2013 Dimming Receptacle.

3. REQUIREMENTS

3.1. Safety
Perform all wiring of receptacle with power turned OFF.

3.2. Limitations
The connectors are designed to operate in a temperature range of -40° to 85°C [-40° to 185°F].

3.3. Material
The housing is made of UL 94V-0 rated thermoplastic. The line voltage contacts are made of phosphorous bronze plated overall with tin. Dimming pad contacts are made of brass with gold plating in contact pad area, tin plated in wire crimp area with nickel under-plate on entire contact.

3.4. Storage

A. Ultraviolet Light
Prolonged exposure to ultraviolet light may deteriorate the chemical composition used in the product material.

B. Shelf Life
The product should remain in the shipping containers until ready for use to prevent deformation to components. The product should be used on a first in, first out basis to avoid storage contamination that could adversely affect performance.

C. Chemical Exposure
Do not store product near any chemical listed below as they may cause stress corrosion cracking in the material.

Alkalies	Ammonia	Citrates	Phosphates Citrates	Sulfur Compounds
Amines	Carbonates	Nitrites	Sulfur Nitrites	Tartrates

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3.5. Handling

The receptacle assembly is supplied with a mating face cap to provide protection during shipping. Dimming contact pads are lubricated with an electrical contact lubricant; therefore after removal of the protective cap, avoid contact with the dimming contact pads which could remove the electrical contact lubricant.

3.6. Receptacle Mounting

A. Mounting

A flat surface shall be provided on luminaire housing to mount receptacle assembly. To provide water-tight mounting, it is highly recommended that a gasket (not provided with receptacle assembly) be used to seal surfaces between receptacle assembly and luminaire housing. The receptacle housing has two mounting holes which accept #8 size flat-head recessed screws. Screws of the appropriate length and type must be determined by the luminaire manufacturer. Depending on the type of gasket and mounting screws used, it is the responsibility of the installer to determine the mounting screw torque to ensure a rain-tight gasketed seal between the receptacle and luminaire housing. See Figure 2.

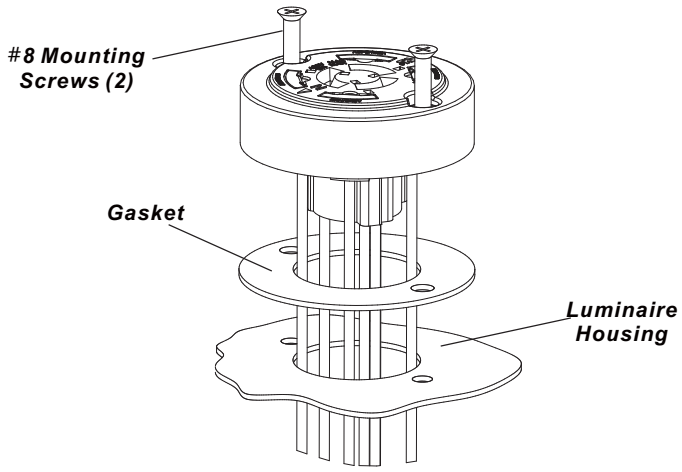


Figure 2

B. Mounting Hole Pattern

The recommended mounting hole pattern is shown in Figure 3.

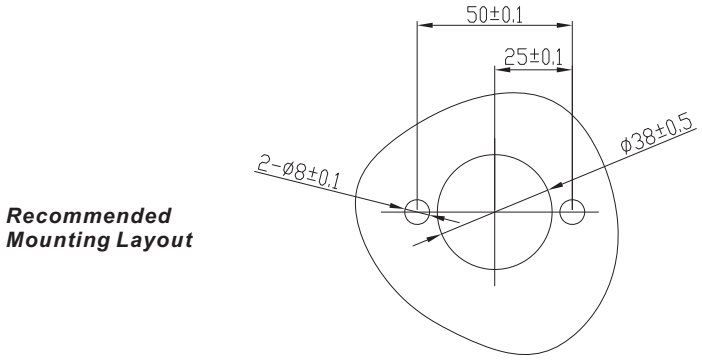


Figure 3

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C. Mounting Location and Orientation
Locate the receptacle where artificial light cannot fall on the mating photocell causing it to turn off or cycle (on and off) at night. If possible, orient the receptacle so the North indicator points North.

D. Workmanship
The housing must not be damaged in any way. There shall be no nicked wire insulation.

3.7. Wire Connections and Diagram

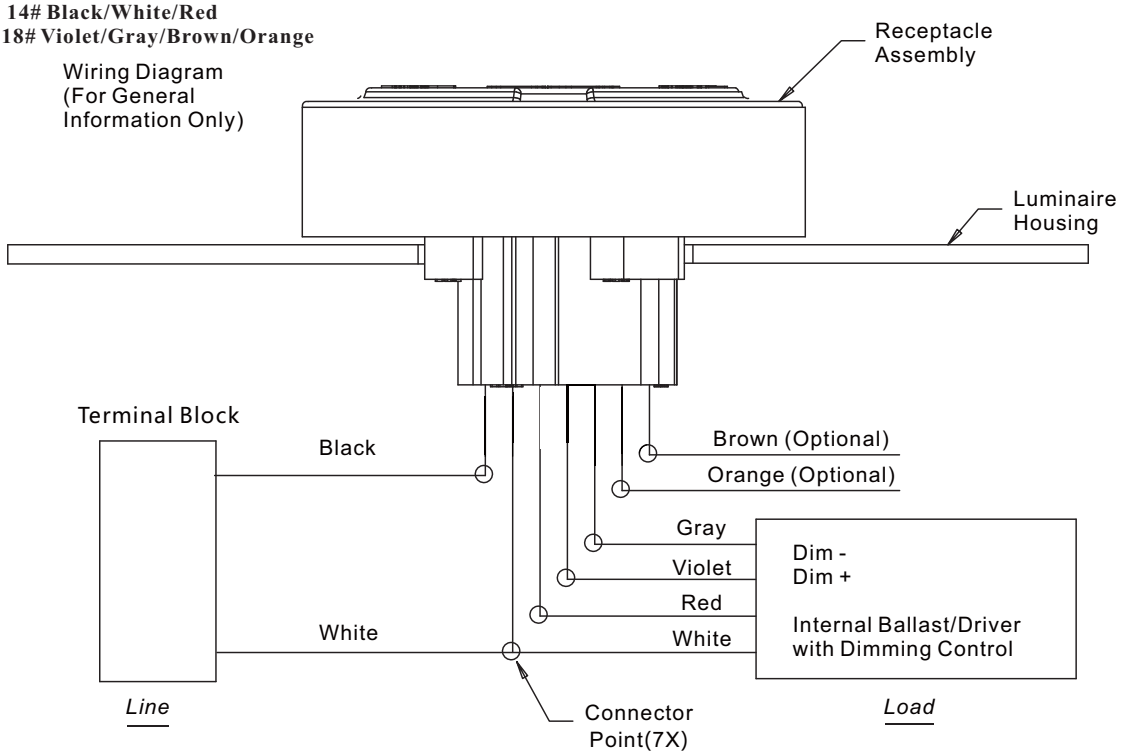
A. Wire Connections
The receptacle wires must be appropriately spliced with the correct line voltage power or dimming signal source. When splicing lead wires with crimp-style splices, wire nuts, etc., ensure the proper size splicing connector per the manufacturers's recommendation is being used.

DANGER
Extreme caution must be taken to ensure that power is OFF prior to disconnecting or connecting any wires to prevent electrical shock.

NOTE
All wire connections must be electrically insulated.

B. Wiring Diagram
The receptacle wires must be appropriately spliced with the correct line voltage power or dimming signal source. Refer to the wiring diagram example shown in Figure 4. Wiring diagram shown is for general information only. Luminaire manufacturer must determine wiring diagram based upon their ballast/driver with dimming control components.

Wires: Double PVC insulated Wire
Power: 14# Black/White/Red
Signal: 18# Violet/Gray/Brown/Orange



Please refer to the wire specification from page 12 to 19

Figure 4

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3.8. Strain Relief
It is recommended that a means be provided to support the wire bundle extending away from the receptacle assembly to prevent inadvertent application of high force to the wire bundle from transmitting into the wire/connector interface. The suggested strain relief method is to use a cable tie and anchor mounted inside the luminaire.

3.9. Mating and Un-mating Photocell to Receptacle
Align photocell blades with receptacle power contact circuits. Note that the neutral photocell blade is larger than the line and load blades, providing mating polarization. After properly aligning the blades to the receptacle power contact circuits, push downward until the photocell is bottomed on the receptacle's mating surface, slightly compressing gasket of the photocell. Then complete mating by twisting the photocell in a clockwise direction. The photocell will lock into position.
To un-mate, reverse the aforementioned mating process. Reference Figure 5.

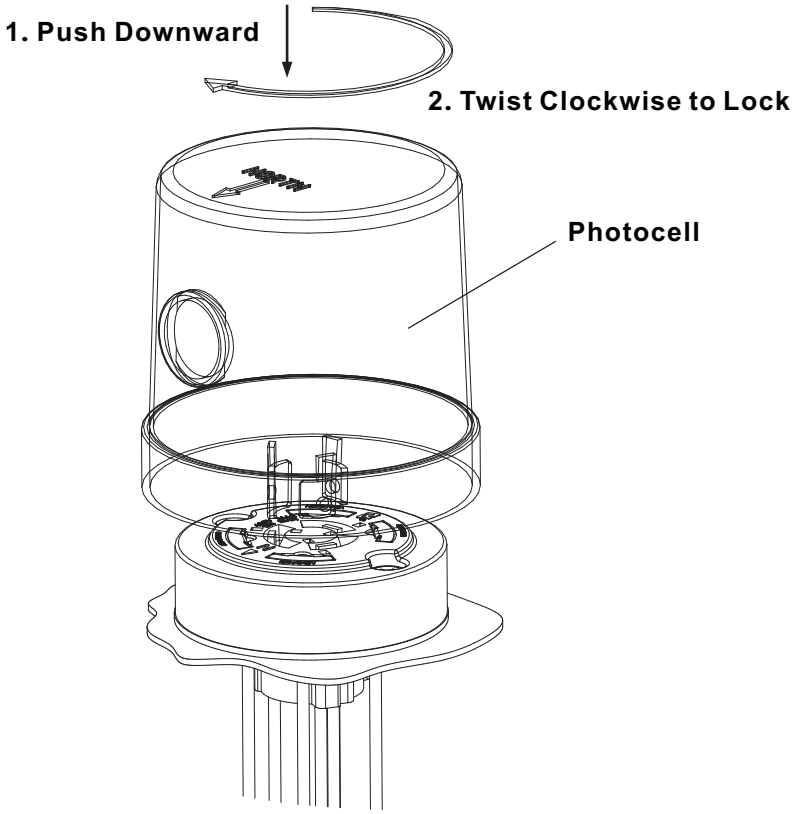


Figure 5

3.10. Replacement and Repair
The contacts and housings are not repairable. DO NOT use an assembly with damaged or defective contacts and/or housings. If damaged, replace the receptacle assembly with a new one.

4. QUALIFICATIONS
ANSI C136.41-2013 Dimming Receptacles are Component Recognized by Underwriters Laboratories, Inc. in File E66375, Volume 5, and have been Investigated to CSA International by UL.

5. TOOLING
No special tooling is require for the installation of this product line.

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6. VISUAL AID

The illustration below shows a typical application of ANSI C136.41-200X Dimming Receptacles. This illustration should be used by production personnel to ensure a correctly applied product. Applications which DO NOT appear correct should be inspected using the information in the preceding pages of this specification and in the instructional material shipped with the product or tooling.

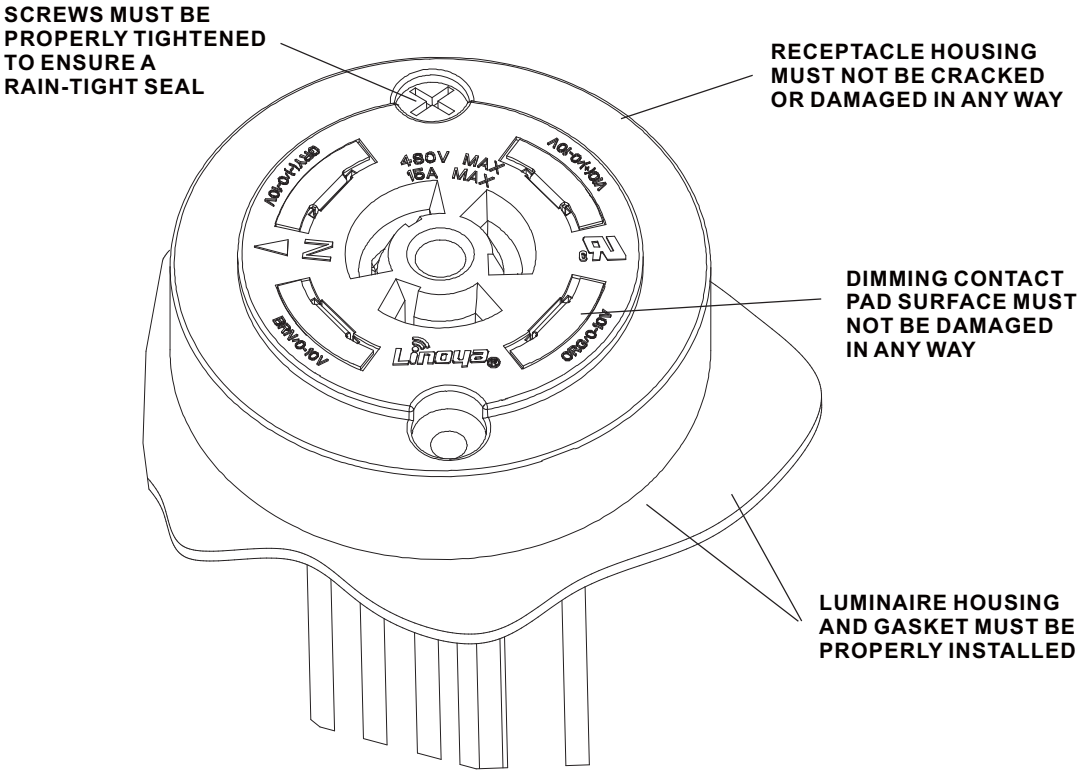


FIGURE 6. VISUAL AID

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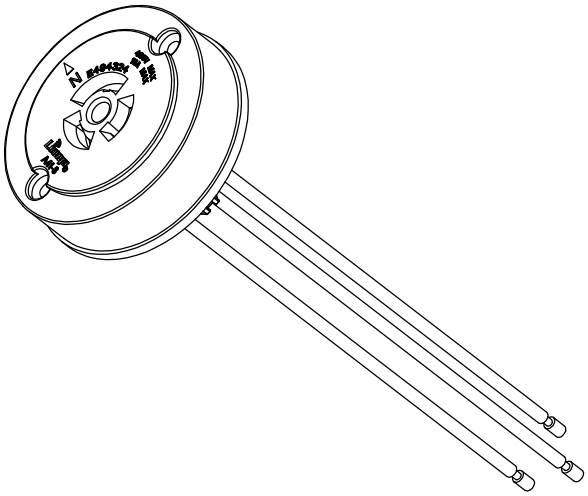
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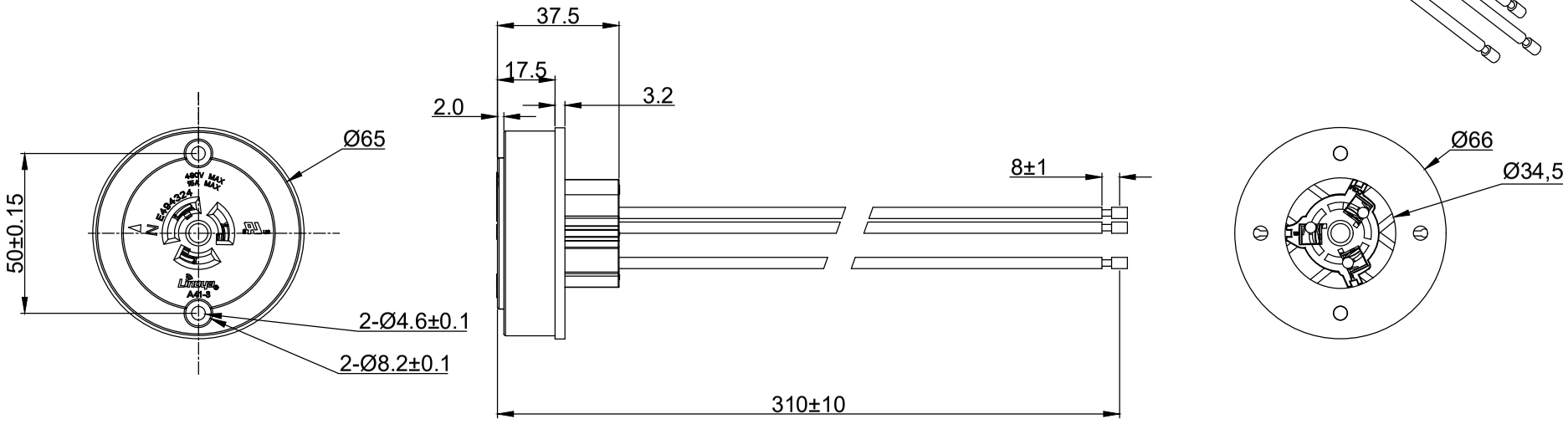
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No.	Description	Drawn	Date	Ver

NOTES:

1. MATREIALS:
   - HOUSING: GLASS-FILLED THERMOPLASTIC, UL 94V-0 RATED
   - LINE VOLTAGE CONTACTS(3):COPPER ALLOY
   - SEALING GASKET: SILICON RUBBER
2. WIRE: UL1015 14AWG VW-1 105℃ 600V (RED、BLACK、WHITE)
3. MATING INTERFACE PER ANSI 136.10-2010



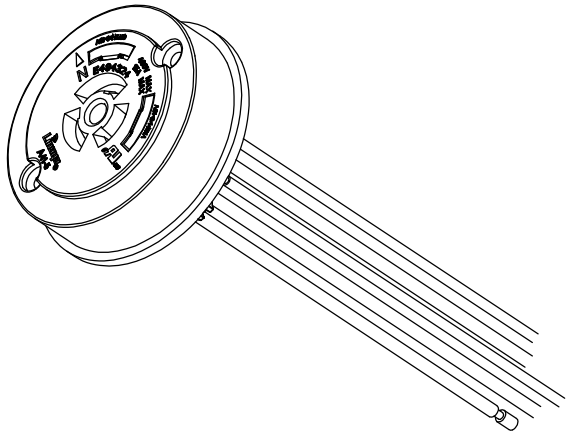


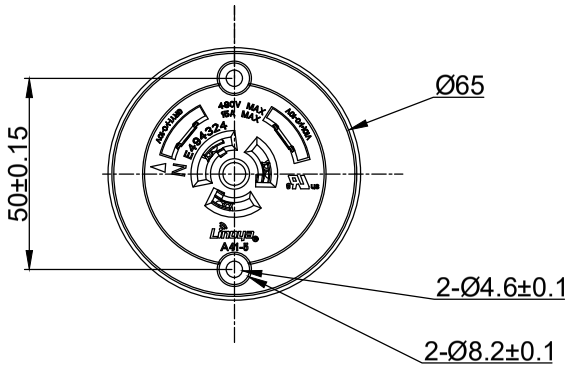
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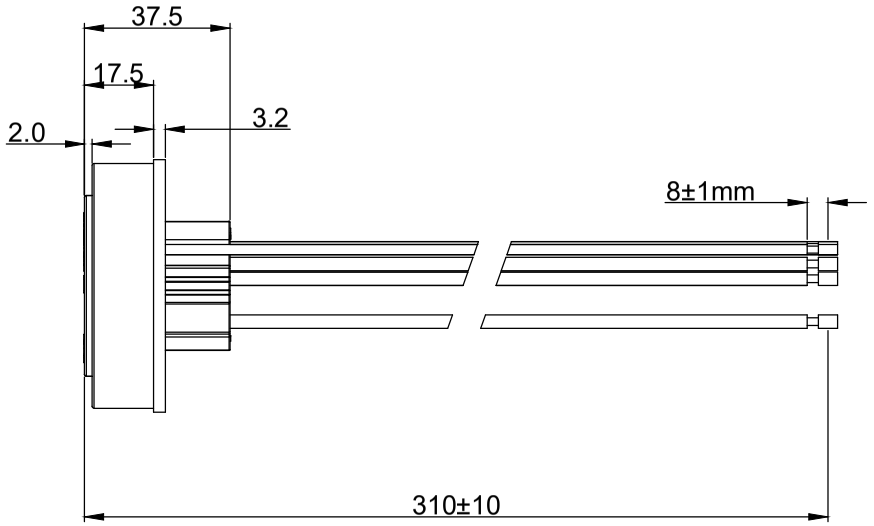
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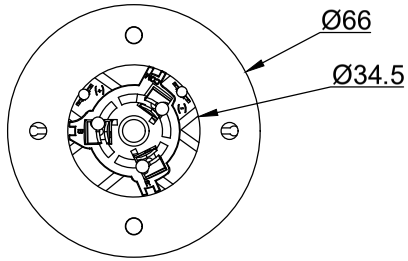
NOTES:

1. MATREIALS:
   - HOUSING: GLASS-FILLED THERMOPLASTIC, UL 94V-0 RATED
   - SIGNAL CONTACT(2) AND LINE VOLTAGE CONTACTS(3):COPPER ALLOY
   - SEALING GASKET: SILICON RUBBER
2. WIRE:
   - UL1015 14AWG VW-1 105℃ 600V (RED、BLACK、WHITE)
   - UL1015 18AWG VW-1 105℃ 600V (VIOLET、GRAY)
3. MATING INTERFACE PER ANSI 136.41-2013







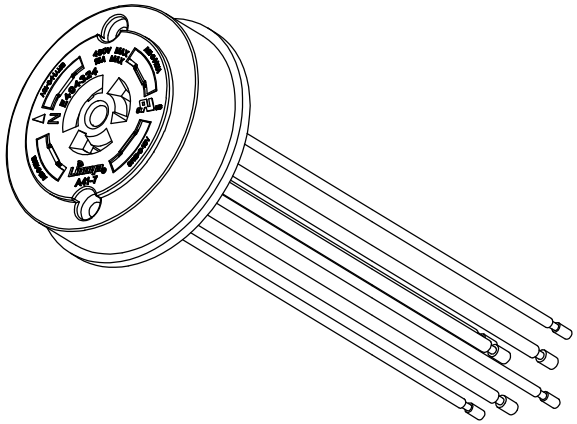


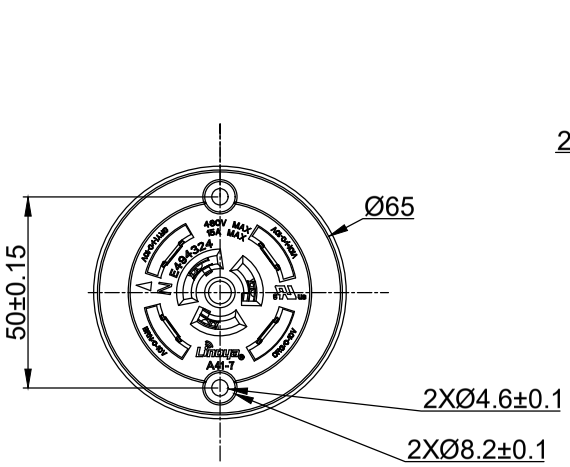
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	Drawing	Wangyu	2018-09-25	Ver	V4
	Check			Angle	
Tolerance: .X: ±0.1 .XX: ±0.05 .XXX: ±0.02	Approve			Drawing NO.	A41-7
	Scale	1:1	Spec	7PIN NEMA	Unit mm

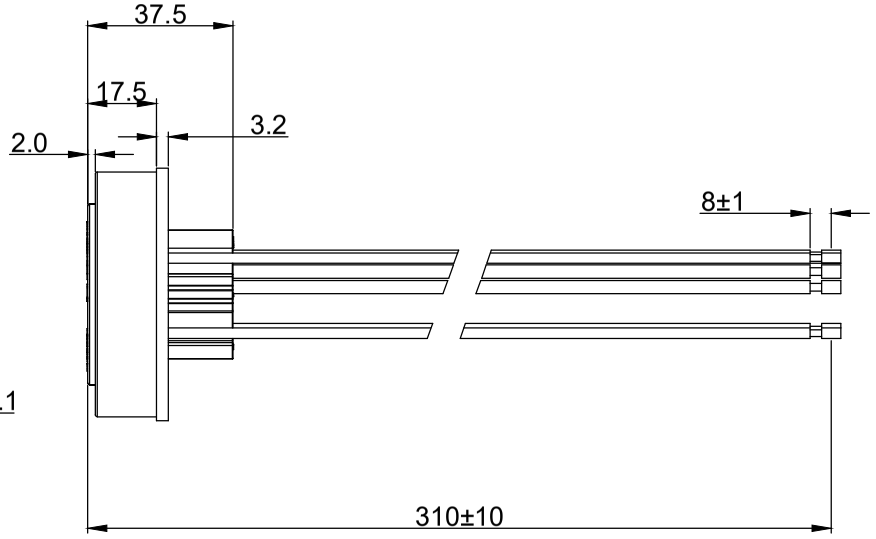
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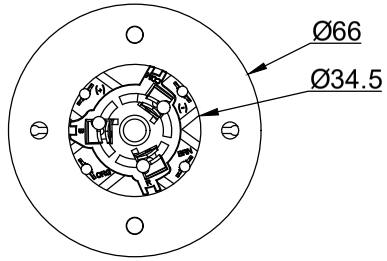
NOTES:

1. MATREIALS:
   HOUSING: GLASS-FILLED THERMOPLASTIC,UL 94V-0 RATED
   SIGNAL CONTACT(4) AND LINE VOLTAGE CONTACTS(3):COPPER ALLOY
   SEALING GASKET: SILICON RUBBER
2. WIRE:
   UL1015 14AWG VW-1 105℃ 600V (RED、BLACK、WHITE)
   UL1015 18AWG VW-1 105℃ 600V (VIOLET、GRAY、BROWN、ORANGE)
3. MATING INTERFACE PER ANSI 136.41-2013









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	Drawing	Wangyu	2018-09-25	Ver	V4
	Check			Angle	
Tolerance: .X:±0.1 .XX:±0.05 .XXX:±0.02	Approve			Drawing NO.	A41-7
	Scale	1:1	Spec	7PIN NEMA	Unit mm